

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0656; Project Identifier MCAI-2021-00394-T; Amendment 39-21800; AD 2021-23-02]**

**RIN 2120-AA64**

#### **Airworthiness Directives; De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.) Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. This AD was prompted by reports of loss of hydraulic fluid and annunciation of the check fire detect light. This AD requires doing a detailed visual inspection for chafing and proper clearance of the left-hand (LH) and right-hand (RH) main landing gear (MLG) primary zone advanced pneumatic detector (APD) sensing lines, the hydraulic tube assemblies, and the surrounding structure, and doing all applicable corrective action. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective January 5, 2022.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of January 5, 2022.

**ADDRESSES:** For service information identified in this final rule, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd@dehavilland.com](mailto:thd@dehavilland.com); internet <https://dehavilland.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0656.

#### **Examining the AD Docket**

You may examine the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0656; or in person at Docket Operations between 9 a.m. and 5

p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email 9-avs-nyaco-cos@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Background**

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued TCCA AD CF-2021-12, dated April 14, 2021 (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. You may examine the MCAI in the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0656.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes. The NPRM published in the Federal Register on August 12, 2021 (86 FR 44324). The NPRM was prompted by reports of loss of hydraulic fluid and annunciation of the check fire detect light. The NPRM proposed to require doing a detailed visual inspection for chafing and proper clearance of the LH and RH MLG primary zone APD sensing lines, the hydraulic tube assemblies, and the surrounding structure, and doing all applicable corrective actions. The FAA is issuing this AD to address insufficient separation between the APD sensing line and surrounding components, which could lead to a hydraulic leak, loss of hydraulic systems, and loss of fire detection in the MLG primary zone should prolonged contact occur. See the MCAI for additional background information.

### **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The FAA has considered the comment received. The Air Line Pilots Association, International (ALPA) stated that it supports the NPRM.

### **Conclusion**

The FAA reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

### **Related Service Information Under 1 CFR Part 51**

De Havilland Aircraft of Canada Limited has issued Service Bulletin 84-26-20, Revision A, dated March 9, 2021. This service information describes procedures for doing a detailed visual inspection for chafing and proper clearance of the LH and RH MLG primary zone APD sensing lines, the hydraulic tube assemblies and the surrounding structure, and doing all applicable corrective

actions. Corrective actions include repair and replacement of the APD sensing line and the hydraulic tube assembly.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Costs of Compliance**

The FAA estimates that this AD affects 54 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

#### **Estimated Costs for Required Actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
5 work-hours × \$85 per hour = \$425	\$0	\$425	\$22,950

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need these on-condition actions:

#### **Estimated Costs of On-Condition Actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Up to 7 work-hours × \$85 per hour = Up to \$595	Up to \$12,643	Up to \$13,238

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:



**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2021-23-02 De Havilland Aircraft of Canada Limited (Type Certificate Previously Held by Bombardier, Inc.): Amendment 39-21800; Docket No. FAA-2021-0656; Project Identifier MCAI-2021-00394-T.**

**(a) Effective Date**

This airworthiness directive (AD) is effective January 5, 2022.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to De Havilland Aircraft of Canada Limited Model DHC-8-401 and -402 airplanes, certificated in any category, serial numbers 4001 and 4003 through 4614 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 26, Fire protection.

**(e) Unsafe Condition**

This AD was prompted by reports of loss of hydraulic fluid and annunciation of the check fire detect light. The FAA is issuing this AD to address insufficient separation between the advanced pneumatic detector (APD) sensing line and surrounding components, which could lead to a hydraulic leak, loss of hydraulic systems and loss of fire detection in the main landing gear (MLG) primary zone should prolonged contact occur.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Inspection and Corrective Actions**

Within 48 months or 8,000 flight hours, whichever occurs first after the effective date of this AD: Do a detailed visual inspection for chafing and proper clearance of the left- and right-hand MLG primary zone APD sensing lines, the hydraulic tube assemblies and the surrounding structure, and do all applicable corrective actions, in accordance with paragraph 3.B. of the Accomplishment Instructions of De Havilland Aircraft of Canada Limited Service Bulletin 84-26-20, Revision A, dated March 9, 2021. Do all applicable corrective actions before further flight.

## **(h) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using De Havilland Aircraft of Canada Limited Service Bulletin 84-26-20, dated October 21, 2020.

## **(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or De Havilland Aircraft of Canada Limited's TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

## **(j) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) TCCA AD CF-2021-12, dated April 14, 2021, for related information. This MCAI may be found in the AD docket on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0656.

(2) For more information about this AD, contact Chirayu Gupta, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531; email [9-avs-nyaco-cos@faa.gov](mailto:9-avs-nyaco-cos@faa.gov).

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (k)(3) and (4) of this AD.

## **(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) De Havilland Aircraft of Canada Limited Service Bulletin 84-26-20, Revision A, dated March 9, 2021.

(ii) [Reserved]

(3) For service information identified in this AD, contact De Havilland Aircraft of Canada Limited, Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email [thd@dehavilland.com](mailto:thd@dehavilland.com); internet <https://dehavilland.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 26, 2021.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

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